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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,120	08/24/2001	Jen-Shou Tseng	UPA-01194	3344

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EXAMINER	
CHOOBIN, BARRY	
ART UNIT	**PAPER NUMBER**
2625	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/939,120	TSENG ET AL.	
	Examiner	Art Unit	
	Barry Choobin	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the deflection angle" in line 5. There is insufficient antecedent basis for this limitation in the claim. Accordingly claim 1 is rejected under 35 U.S.C. 112, second paragraph.

CLAIM OBJECTION

2. Claim 1 is objected for minor informality. In claim 1, line 8, "basing" should be _based_.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jia et al (US 6,430,320) in view of Britt (US 4,941,189).

As to claim 1, Jia et al disclose an automatic document-scanning method for scanner applicable particularly to a document (Jia et al, at column 4, lines 25-41 disclose automatically determining scanner background information in use of general

purpose scanning device for scanning an image including a document image as is required by the claim), comprising:

(A) Previewing the document (column 16, lines 21-28 wherein an initial preview of the document can be accomplished by the preview scan 1312).

Jia et al disclose that the image can be a photograph, text only or mixed document containing photographs, text, graphics and determines the edge and skew angle of the image (corresponding to deflection angle). However, Jia et al does not expressly disclose performing optical character recognition of the written language on the document and calculating the deflection angle thereof.

But on the other hand, Britt (US 4,941,189) discloses an optical character reader with skew recognition comprising; detecting and correcting the amount of tilt or skew of the lines of a document so that the amount of tilt or skew of the line may be corrected on the recognized character performed by OCR (column 2, lines 18-30).

Britt is combinable with Jia et al because they both are concern with skew correction on an image for further processing.

At the time the invention, it would have been obvious to a person of ordinary skill in the art to modify Jia et al with Britt in order to calculate a new coordinate for each character by rotating each character about the reference point (see column 3, lines 39-61 of Britt).

The suggestion/motivation for doing so would have been that the skew correction is being done not only on the edges of the document but also on each line or column of characters in a document (see Britt column 1, lines 10-16).

Therefore, it would have been obvious to combine Britt with Jia et al to obtain the invention as specified in claim 1.

(C) Scanning the document (Britt discloses "tilting or skewing if characters on a document being scanned" at column 8, lines 55-60 corresponding to scanning the document); and

(D) Automatically correcting the image of the scanned written language obtained in step (c) basing on the deflection angle (Jia et al disclose one of the feature of the invention is no requirement for human intervention, corresponding to automatically in this portion of claim {column 4, lines 63-66}. Furthermore, at column 4, lines 40-61 wherein Jia et al disclose deskewing the image based on computed skewed angel {deflection angle} corresponds to correcting the image.

As to claim 2, Jia et al disclose a driver code programmed for the scanner, based on step (A) through step (D) for being run in a computer (column 6, lines 42-63 wherein scanner driver program corresponds to a driver code program for the scanner).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,381,342 to Foley is cited for a method for reading and storing documents comprising automatically determining orientation of a document and automatically reorienting the image to preferred orientation (fig.2).

US 6,064,778 to Pasco et al is cited for a method and apparatus for near real time document skew compensation comprising; detecting skew and/or size of a document, establishing a skew angle and modifying the scanning signals to compensate for skew wile the document being scanned.

US 5,452,374 to Cullen et al is cited for skew detection and correction of a document image representation comprising skew detection and angle calculation at step 206, and skew correction at step 207.

US 6,449,397 to Che-Chu is cited for an image processing system for scanning a rectangular document comprising; correcting the image shape based on angle variation.

US 6,687,420 to Matsuda et al is cited for image reading apparatus comprising; pre-scanning a document, calculating a deflection angle and correcting distorted image based on the deflection angle (column 10, lines 35-55).

US 5,581.635 to Zhu et al is cited for method and system for fast rotation of run-length encoded images (fig.2b).

CONTACT INFORMATION

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barry Choobin
September 10, 2004